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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,357	02/20/2004	Sangkeun Rhee	H0004301 (4760)	7709

7590 12/21/2005
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EXAMINER

DOONER, CHARLES

ART UNIT PAPER NUMBER

1772

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/783,357	RHEE ET AL.	
	Examiner	Art Unit	
	Charles Dooner	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 44-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) 1-49 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/20/04 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-43, drawn to a multilayer film, classified in class 428, subclass 36.6.
 - II. Claims 44-49, drawn to a process for making said film, classified in class 264, subclass 173.11.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group II and Group I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process can be used to make multilayered structures lacking the adhesive tie layer.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Richard S Roberts on November 16, 2005 a provisional election was made with traverse to prosecute the invention of Group I, claim 1-43. Affirmation of this election must be made by applicant in replying to this Office action. Claims 44-49 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

The drawings are objected to because the serial number of the application does not appear on the page. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because the serial number of the application does not appear on the page. Correction is required. See MPEP § 608.01(b).
3. The attempt to incorporate subject matter into this application by reference to US patent numbers 4,510,301 and 4,544,721 is ineffective because they do not appear on the Information Disclosure Statements.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 30-33, 35-36, and 38-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawachi et al. (6,656,601). Kawachi et al. (6,656,601) discloses an adhesive composition with high adhesive strength (Col. 2, Lines 55-57) containing 1% by weight to 50% by weight of a tackifier (Col. 3 Line 18), where said tackifier is selected from petroleum based (Col. 19, Line 1), terpene based (Col. 19, Lines 12-14), as well as other known tackifiers (Col. 2, Lines 57-67 and Col. 3, Lines 1-34), and 50% by weight to 99% by weight of an ethylene/ α -olefin copolymer (Col 3, Lines 4-5), where said ethylene/ α -olefin copolymer comprises ethylene and an α -olefin of 3-20 carbon atoms (Col. 3, Lines 6-7).

Claim Rejections - 35 USC § 103

5. Claims 1-28 and 40-42 rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai et al. (2003/0008152) in view of Kawachi et al. (6,656,601).

With regards to claims 1-28 and 40-42, Tsai et al. (2003/0008152) discloses an multilayer film comprising a fluoropolymer layer and a thermoplastic layer, which in this case is a cyclic (cyclo) olefin homopolymer or copolymer layer, attached by an adhesive tie layer (Pg. 1, Para. 13, Lines 1-5). Tsai et al. (2003/0008152) also discloses a number of fluoropolymers that can be used in the film, such as chlorotrifluoroethylene homopolymers and copolymers (Pg. 1, Para. 14, Lines 5-11). The multilayer film disclosed may have a number of additional layers of other polymers with or without adhesive layers between the polymer layers (Page 2, Para. 18, Lines 18-23). These additional layers may comprise of thermoplastics such as polyolefins, polyvinyl chloride, polyvinylidene chloride, or other such polymers (Page 2, Para. 18, Lines 16-22). The film layers are coextruded together using cast or blown film techniques (Col. 3, Lines 58-60). The films in Tsai et al. (2003/0008152) can be oriented (stretched) uniaxially or biaxially from at least 1.5 to 10 times in the longitudinal (machine) and/or transverse directions. It would have been obvious to one of ordinary skill in the art at the time the invention was made that the film could also be stretched to a size smaller than 1.5 times to encompass the 1.3 times of the instant invention. Further, Tsai et al. (2003/0008152) discloses that the films can be formed or thermoformed (Page 5, Para. 40, Lines 6-8) into an article suitable for packaging moisture sensitive products due to the

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fluoropolymer containing films improved water vapor barrier capability (Page 5, Para. 40, Lines 2-4). Tsai et al. (2003/0008152) fails to teach an adhesive tie layer comprising a combination of at least one tackifier and at least one ethylene/alpha olefin. Tsai et al. (2003/0008152) further fails to teach the specific composition of said adhesive tie layer, such as the choice of tackifier from claims 13 and 14, the ethylene/alpha olefin copolymer having a alpha olefin of 3 to 20 carbon atoms as in claim 15, and the weight percents of the tackifier and ethylene/alpha olefin copolymer in the adhesive tie layer from claims 16 to 21.

Kawachi et al. (6,656,601) discloses an adhesive composition containing a tackifier in amounts of 1% by weight to 50% by weight (Col. 3, Line18), where said tackifier is selected from petroleum based (Col. 19, Line 1), terpene based (Col. 19, Lines 12-14), as well as other known tackifiers (Col. 2, Lines 57-67 and Col. 3, Lines 1-23), and an ethylene/ α -olefin copolymer in the amount of 50% by weight and 99% by weight (Col. 3, Lines 4-5), where said ethylene alpha copolymer comprises an ethylene and an alpha olefin with 3 to 20 carbon bonds for the purpose of obtaining an adhesive composition has high adhesive force between polymers (Col. 2, Lines 55-57).

It would have been obvious to one of ordinary skill at the time the invention was made to use the adhesive composition comprising a combination of at least one tackifier and an ethylene/alpha olefin copolymer of Kawachi et al. (6,656,601) as an adhesive tie layer in the multilayer film of Tsai et al. (2003/0008152) in order to obtain a film with increased adhesive strength between the fluoropolymer layer and the thermoplastic layer.

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6. Claims 29 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai et al. (2003/0008152) in view of Kawachi et al. (6,656,601) as applied to claim 1 above, and further in view of Jing et al. (6,849,314). Tsai et al. (2003/0008152) in view of Kawachi et al. (6,656,601) fails to teach the multilayer film being formed into a tube.

Jing et al. (6,849,314) discloses that fluoropolymer films are well known in the art to be formed into tubes.

It would have been obvious to one of ordinary skill at the time the invention was made to form the multilayer article of Tsai et al. (2003/0008152) in view of Kawachi et al. (6,656,601) into a tube as in Jing et al. (6,849,314) since it is well known in the art.

7. Claims 34 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawachi et al. (6,656,601). Kawachi et al. (6,656,601) discloses an adhesive composition with high adhesive strength (Col. 2, Lines 55-57) containing 1% by weight to 50% by weight of a tackifier (Col. 3 Line 18) and 50% by weight to 99% by weight of an ethylene/ α -olefin copolymer (Col 3, Lines 4-5). These ranges substantially cover the 1% by weight to 60% by weight of said tackifier and the 50% by weight to 99% by weight of said ethylene/alpha olefin copolymer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine through experimentation the optimal amounts for proper adhesion of said tackifier and said ethylene/alpha olefin copolymer with the absence of new or unexpected results. See MPEP § 2131.03(II).

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tsai et al. (US 20040197567 A1, US 20030008152 A1, US 20010008694 A1, US 6465103 B2, US 6238607 B1, US 5945221 A, US 5874035 A, US 5460760 A), Tsai (US 6555190 B1, US 6432542 B1, US 6306503 B1), Wong et al. (US 4612155), Dubois et al. (US 6319979), Parikh et al. (US6344515) are cited to show the current state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Dooner whose telephone number is (571) 272-1646. The examiner can normally be reached on Monday-Friday from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


HAROLD PYON
SUPERVISORY PATENT EXAMINER
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A handwritten signature in cursive script that reads "Charles Dooner".

Charles Dooner

Patent Examiner

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